



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

inson, a case of intussusception of the ileum and cæcum; Weber, Leblanc, Trasbot, Youatt, Gowing and son, etc.

The chapter on Accidents and Operations covers the ground very thoroughly for the first heading, and includes, under the second, some of the more difficult operations as well as the lesser ones, such as removing of dewclaws, cropping, tailing, etc.

Mr. Hill strongly advocates the use of chloroform, saying: "On the score of humanity, however, chloroform chiefly demands our attention, and with the knowledge that we are not inflicting pain is gained strength of nerve, confidence in ourselves, and, probably, a more successful issue to our patient."

To members of his profession he writes: "We must remember that the most sacred duty of the veterinary surgeon is to prevent or alleviate pain and distress in animals."

An appendix gives a table of Medicines and their Doses, Poisons and their Antidotes, and also a Standard of Points for Judging. The standards are nearly all taken from those recommended by the various dog clubs, and consequently there are a few breeds which are not included, owing to inability to obtain a recognized standard of points in connection with them.

The photographic reproductions of famous dogs, the work of Thomas Fall, F.R.P.S., the well-known and artistic English photographer, are very handsome.

The index is full and accurate, the type clear and on good paper, and the book is of a convenient size. There are, besides those noticed in some of the quotations, many instances of defective style that might be quoted, but these are not of a kind that detract from the usefulness of the book.

There is no list of illustrations, and, considering the excellence of these, and that there are no less than eleven plates, most of them giving two figures of celebrated dogs, this is a serious omission, one that ought not to have occurred, especially in a fifth edition.

A. V. H.

**Studies on Hirudinea.**—A posthumous paper by the late Arnold Graf<sup>1</sup> discusses exhaustively the structure and activities of the excretory organs of the leech. Though not concerned primarily with classification, it contains figures of several North-American species of *Glossiphonia* ("Clepsine") new to science. Graf's studies of

<sup>1</sup> Hirudineenstudien, *Abh. der Kaiserl. Leop.-Carol. Deutschen Akademie der Naturforscher* (Halle), Bd. lxxii (1899), Nr. 2, pp. 217-404, Taf. I-XV, 26 text-figs.

the minute structure of the nephridia, made partly on fresh, partly on fixed material, form an important contribution to cytological knowledge.

He finds that leucocytes ("excretophores") play an active part in the process of excretion. Arising from the cœlomic epithelium, they become filled with excretory products in the lymph vessels, and then either migrate to the funnel apparatus of a nephridium, where they are broken up and give off their products to the canal cells of the nephridium, or else pass by amœboid movements through the walls of the lymph vessels and the muscle layers of the body to the epidermis, there to disintegrate. In either case they form the vehicle for the transportation, partial or complete, of excretory products to the surface of the body.

Pigment cells, the author finds, are a special variety of "excretophore," in which the excretory substance assumes a particular color as the cell passes to the epidermis. The formation of a definite color pattern in the leech is explained as the purely mechanical result of the migration of pigment cells along the path of least resistance toward the surface of the body. This leads to the aggregation of pigment in particular regions of the epidermis, especially between bundles of longitudinal muscles and in places where dorso-ventral muscles have their attachments. The foregoing explanation, perhaps, accounts adequately for such markings as simple longitudinal striations of a uniform color, but, in the opinion of the reviewer, fails to explain the more complicated color patterns of many leeches, in which corresponding regions of successive somites may be pigmented very unequally or in colors strikingly contrasting.

W. E. C.

**The Resources of the Sea.**—Professor W. C. McIntosh's volume, *The Resources of the Sea as shown in the Scientific Experiments to test the Effects of Trawling and of the Closure of Certain Areas off the Scottish Shores* (London, C. J. Clay & Sons, 8vo, 248 pp., illustrated), sheds a deal of light on a very complex problem. It treats mainly of the Scottish fisheries, those of St. Andrews Bay, the Frith of Forth, Moray Frith, and the Frith of Clyde, but summarizes on British fisheries in general. The experiments tabulated cover a period of ten years or more; they relate to the effects of the use of trawls on the abundance of fishes, on the young, on the eggs, and on the food, and also to what may be effected in the way of replenishment by closure of particular areas. The value of the book